

### **REMARKS**

This response is being submitted in response to the Office Action dated August 2, 2004 for which a response is due on December 2, 2004 with a one-month extension of time, which is included herewith. In the Office Action, the examiner objected to Figures 1-4 for various informalities. In response, replacement sheets for Figures 1-4 are being submitted herewith to overcome the objections.

The examiner further objected to the specification for also containing various informalities. In response, the Abstract has been amended to correct the noted minor informalities. In addition, in paragraph 7(c) of the Office Action the examiner seeks clarification of whether the 30Q branch is being shifted by 90 degrees. In response, the Applicant notes that it is actually the "signal generated by the local oscillator" which is being "shifted 90 degrees" (See p.4, ll 7-9). The inverter 3-4 does not phase shift the 3-I branch nor the 3-Q branch.

The examiner further objected to the disclosure as explained in paragraph 7(d) of the Office Action. In response, Applicant has amended the specification to clarify the fact that block 4-22 of Figure 4 contains two shift registers. Other minor informalities in the disclosure noted in the Office Action will be corrected once the application is in condition for allowance, unless examiner requests otherwise.

With respect to the claims, the examiner objected to several claims as noted in paragraphs 9-12 of the Office Action. Applicant has amended claims 5, 6 and 9 to correct those deficiencies. In addition, claims 1, 2 and 7 have been amended to correct other minor informalities. Claims 1-12 remain pending.

In the Office Action, claims 1 and 12 were rejected under 35 U.S.C. 102(b) as being anticipated by United States Patent No. 4,785,463 issued to Janc et al. ("Janc"). Janc

discloses a digital positioning system receiver which purports to provide reception and tracking for a plurality of satellites simultaneously (See Janc, Abstract). For the reasons outlined below, Applicant submits that Janc fails to anticipate or render obvious the claims of the present invention.

In paragraph 14(1) of the Office Action, the examiner equates the quadrature mixer/decimator 310 of Janc with the "sampling circuit" of claim 1. However, the function of the decimator 310 of Janc is specifically recited as being to convert the signal down to a zero frequency (See Janc, Col. 10, ll 14-16). In sharp contrast, the sampling circuit of claim 1 does not down-convert to a zero frequency, but rather re-samples the signal at the sampling frequency, which is recited in claim 1 as being generated by an oscillator (See Claim 1, line 5).

The Examiner further equates the lowpass filters/decimators 322 and 324 of Janc with the matched filter of the present invention (see element 4-16 in Figure 4). However, the lowpass filter/decimators 322 and 324 do not function as matched filters at all, but rather are specifically recited as reducing the sampling rate of the signal according to Nyquist's sampling theorem (see Janc, Col 8., ll 54-62). In sharp contrast, the matched filter of the present invention correlates the re-sampled signals with one or more reference signals, as recited in the present claims. Applicant would further like to note that Janc doesn't even mention a matched filter nor a reference signal. Applicant further submits that the lowpass filter/decimators 322 and 324 of Janc are not even capable of carrying out the recited operation of the recited matched filter. In particular, the only input into the lowpass filter/decimators 322 and 324 of Janc are the outputs of multipliers 332 and 334. Again, there is no reference signal to which a correlation may be calculated.

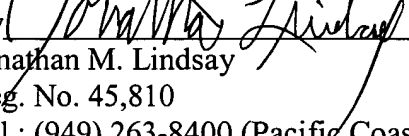
Applicant respectfully submits that the application is now in condition for allowance. Applicant further submits that the dependent claims are allowable by virtue of depending on

allowable base claims. If there are any questions regarding this Response or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

Respectfully submitted,

CROWELL & MORING LLP

Dated: December 2, 2004

By   
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Angela Williams

12/02/2004

Date

**Amendments to the Drawings**

The attached sheets of drawings include changes to Figures 1 - 4. These sheets replace the original sheets including Figures 1-4. In Figures 1-3, a legend of --PRIOR ART-- has been added. In Figure 4, reference numerals 4-35 and 4-41 have been omitted. In addition, several dashed lines enclosing various elements in Figure 4 have been omitted.

**Attachments:**

Replacement Sheets for Figures 1-4

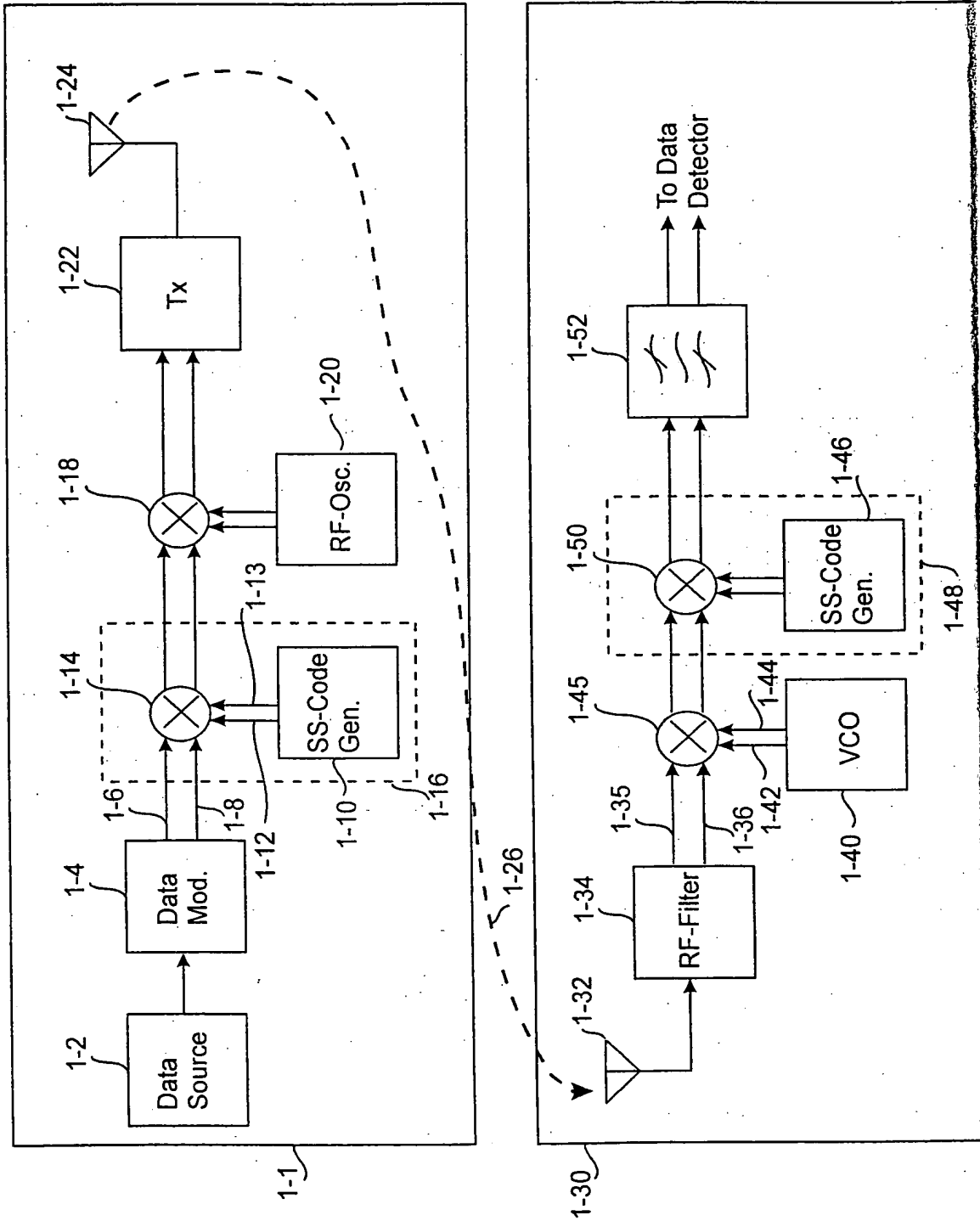
Annotated Sheet Showing Changes for Figures 1-4



Appl. No. 09/689,750  
Amdt. Dated Dec. 2, 2004  
Reply to Office Action of Aug. 2, 2004  
Annotated Sheet Showing Changes

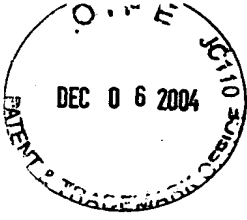
FIG. 1

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PRIOR ART

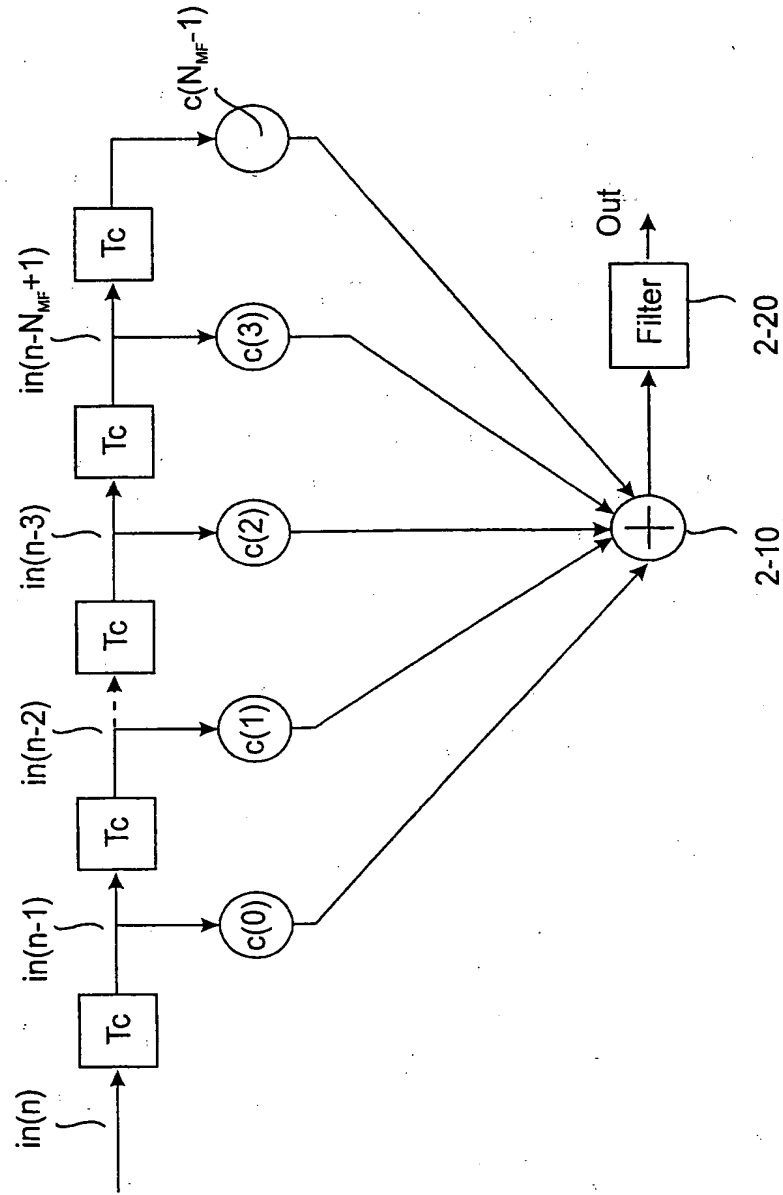
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FIG. 2

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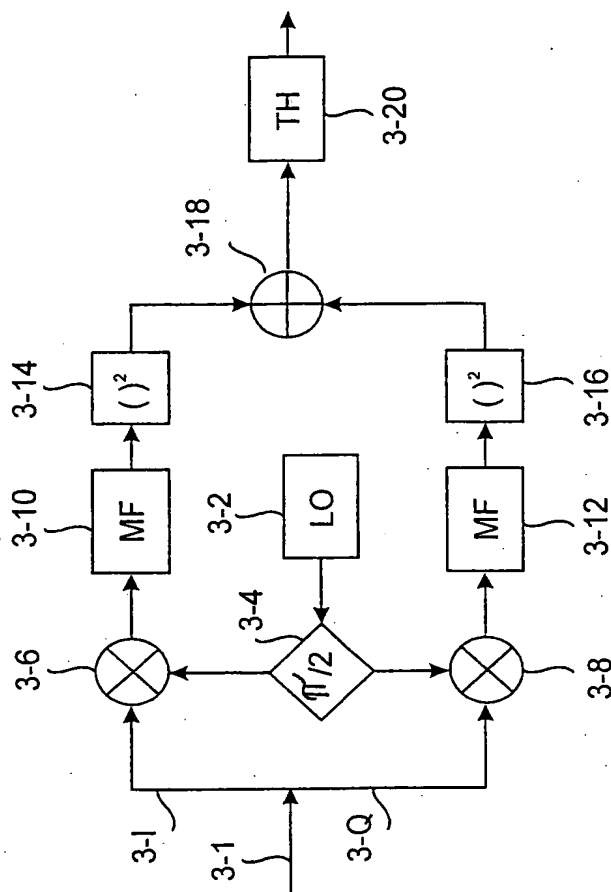


PRIOR ART — Added



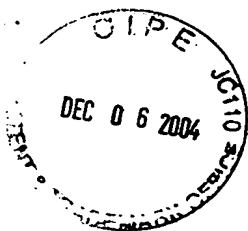
3/6

**FIG. 3**



**PRIOR ART**

Added



4/6

FIG. 4

